

these surveys until June 30, 1953. On July 1, 1953, the research work of SCS was transferred to the ARS but the Snow Survey Program remained with SCS. On July 1, 1940, the Weather Bureau was transferred from USDA to the Department of Commerce. Section 8 of Reorganization Plan 4 specifically authorized USDA to continue to make snow surveys. Based on P.L. 74-46 and the above described authorities SCS has provided the leadership and participated in the operation and direction of the cooperative snow survey activity in the Western States since 1935. (336)

The first known survey in the U.S. was reported in 1834. The first known survey with a documented measurement method was reported in 1880. The first known survey with a documented measurement method was reported in 1880.

Listed below are representative SCS budget obligations from 1935 to 1965 and annual obligations from 1970 to 1978:

FISCAL YEAR	OBLIGATIONS
1935	\$ 36,000
1945	60,000
1960	381,000
1965	591,000
1970	792,669
1971	836,629
1972	890,743
1973	1,039,856
1974	1,115,727
1975	2,144,702
1976	3,208,191*
1977	2,251,691
1978 (EST.)	4,300,000*

\* Includes funds for a large instrumentation contract not yet completed.

Snow survey data are available on request to all Federal, state and private parties who need them. The average annual potential benefits to irrigated agriculture are \$43,436,000. The average annual cost of the manual snow survey program is approaching \$1,500,000 for FY 1978. Implementation of the automatic telemetry program will increase annual potential benefits to agriculture to a range of \$47,836,000 to \$50,037,000 and average annual costs to \$2,500,000. The estimated benefit-cost ratio of the entire snow survey program is about 20 to 1. (342)

1/ Reorganized as a part of Science and Education Administration.

2/ Reorganized as a part of Economics, Statistics, and Cooperatives Service.

## CHAPTER 9

### INTERAGENCY COORDINATION

Following the dissolution of the National Resources Planning Board in 1943, President Roosevelt issued Executive Order 9384. This order directed that all public works construction agencies prepare, and keep up to date, long-range programs that must be submitted annually to the Bureau of the Budget. This order appeared to give the Bureau of the Budget (BOB) much of the authority to coordinate construction agency planning that the National Resources Planning Board had possessed. But Congress didn't agree with this position. In 1945 it refused to appropriate money for a proposed BOB division which would coordinate the Federal public works programs. It stated that the New Federal Interagency River Basin Committee could adequately undertake this function. (343)

#### The Federal Interagency River Basin Committee (FIARBC)

When the National Resources Planning Board (NRPB) was dissolved, the Tripartite Agreement gave way to a similar agreement between the De-



among the member agencies. All the committees included representatives of the affected states. Generally, unanimous consent was required for the committees to take action. One of the difficulties with the regional committees was that they were not able to reconcile separate agency plans and policies to the point of providing the integrated river basin plans that had been the objective of the NRPB. (347) USDA was a member and active participant not only of FIARBC but also each of the river basin committees. It took its turn at chairing each of the three western committees.

### Official Study Commissions

#### 1. U. S. Commission on the Organization of the Executive Branch of the Government, 1949. (First Hoover Commission)

The first Hoover Commission was a bipartisan organization, with members appointed by both the President and Congress. It recommended the formulation of a Water Development and Use Service in the Interior Department. This would bring together the rivers and harbors and flood control functions of the Corps of Engineers with the reclamation and power activities already in the Department. It also recommended the creation of drainage area commissions representing the proposed new Service, the USDA, and the affected states. The purpose of these commissions would be coordinating and advisory. In addition, it recommended the creation of an independent board in the Office of the President to review all project proposals of the reorganized Interior Department from the time they were first proposed. It would also periodically evaluate and give advice as to the continuance of authorized projects. (348)

None of the proposals of the first Hoover Commission was adopted. While President Truman supported the proposal to transfer the civil works functions of the Corps of Engineers to the Department of the Interior, it was rejected by Congress. (349)

#### 2. The President's Water Resources Policy Commission, 1950.

This Commission of independent experts was chaired by Morris L. Cooke, the former chairman of the Mississippi Valley Committee of the Public Works Administration. Hence, it often was referred to as the Cooke Commission. This Commission was established on January 3, 1950. It saw water resources development as a means to balanced regional economic development which was needed to strengthen the entire nation. It observed that the post-World War II period was one of population growth, urban concentration, and industrialization. It considered that these changes probably would lead to a new set of water resources problems. It envisioned these problems as mainly involving the inhibition of economic growth by future water shortages. (350)

The Cooke Commission also favored organizational consolidation into a Department of Natural Resources. It proposed that Congress set up interagency river basin commissions for each major basin. The work of

these basin commissions would be reviewed by a board of review in the executive branch. This board would have authority to appraise all findings of economic feasibility and consider all proposals from the point of view of the total National interest. It also would be authorized to develop uniform evaluation techniques for guidance of Federal agencies. No new water planning legislation was introduced as a result of this report, but it is reported to have inspired the Bureau of the Budget to issue Circular A-47. (351)

The Commission was concerned that USDA had entered the flood control field with its upstream watershed program. It felt that this program, designed originally to treat land so as to check run-off, had rapidly developed to include constructing engineering works in competition with the Corps of Engineers. (358) In fact, it felt so strongly about this development that it recommended that Congress enact legislation assigning to the Corps of Engineers all construction work justified primarily for flood control and that the SCS not be authorized to undertake these tasks on any basis whatsoever, and further that land treatment programs be undertaken primarily for purposes other than flood control. (359)

The Commission advocated two measures to promote central executive branch control of water resource planning: (a) strengthening the Bureau of the Budget to enable it to evaluate the merits of water development projects, and (b) the creation of a Water Resources Board in the Executive Office of the President which would be empowered to make policy recommendations and coordinate agency planning both in Washington and in the field. (360)

#### 5. Presidential Advisory Committee on Water Resources Policy, 1955.

President Eisenhower set up this Cabinet-level committee (consisting of the Secretaries of Agriculture, Defense and the Interior) before the Hoover Commission had completed its work. It issued its report on December 22, 1955. It declared that: "A sound water policy must look forward toward an adequate supply of water for our people, prevent waste,



Resolution 281 of the 84th Congress. This resolution stated the opposition of the Senate to any attempt by the President to appoint a coordinator or board of review by Executive Order as an Executive infringement of Congressional powers. The resolution also opposed Budget Bureau Circular A-47 and its proposed revision. (364)

#### 6. Senate Select Committee on Water Resources.

A brief statement about this Committee and its establishment has been given in Chapter 6. This statement included a discussion of the Committee's first recommendation. Other pertinent recommendations are:

- a. That the Federal Government stimulate more active participation by the states in planning and undertaking water development and management activities;
- b. That a periodic assessment of water supply-demand relationships be made biennially for each of the water resource regions of the United States;
- c. That a Federal program of coordinated scientific research on water be implemented;
- d. The adoption of a series of steps to encourage efficiency in water development and use. (365)

The Select Committee also considered Federal reorganization and consolidation of Federal water resource agencies. While it favored fewer Federal agencies operating in the water resources field, it had doubts about the efficacy of a new consolidated water agency. (366)

#### Interagency Committee on Water Resources (ICWR)

When the administration changed in 1953 there was a reappraisal of interagency coordination on water resources. In May 1954 President Eisenhower requested that FIARBC be reconstituted as the Interagency Committee on Water Resources (ICWR). This Committee was to have members of sub-Cabinet rank and to include the new Department of Health, Education and Welfare as successor to the Federal Security Agency. The Departments of Commerce and Labor agreed to participate in separate member status.

## Coordination of Project Evaluation

### 1. Bureau of the Budget Circular A-47.

On December 31, 1952, the Bureau of the Budget sent its Circular A-47 to the heads of agencies having responsibility for the development of water and related land resource programs. It stated that the Circular was designed to set forth the standards and procedures which would be used by the Executive Office of the President in reviewing proposed water resource project reports and budget estimates to initiate construction of such projects. (369)

The authority for the Circular was cited as Executive Order 9384, October 4, 1943. This Circular supplemented the requirements of



duties which included continuing the activities begun under the predecessor Subcommittee on Benefits and Costs. The ICWR, on August 12, 1958, authorized the reissuance of the May 1950 Report, as revised, and its adoption as a basis for consideration by the participating agencies in the evaluation of river basin developments. (378)

USDA was actively involved in the preparation of this revised report. Ernst H. Wiecking, again, was USDA's member on the Subcommittee. Carl Ford, SCS, William A. Green, ARS, and Mark M. Regan, ARS, were members of the Subcommittee staff. (379) As with the "First Green Book", all concerned agencies did not fully adopt and follow the provisions of the "Second Green Book".

3. Policies, Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources, S.D. 97.

In a memorandum of October 6, 1961, President Kennedy requested the Secretaries of the Interior, Agriculture, Army, and Health, Education and Welfare to review existing evaluation standards and to recommend improvements. The resulting report was approved by the President on May 15, 1962, and published as Senate Document No. 97, 87th Cong., 2nd Sess. This document replaced Budget Bureau Circular No. A-47. (380)

S.D. 97, for the first time, recognized development, preservation and well-being of people as co-equal planning objectives. However, plans were to be formulated initially on the basis of economic benefits and costs and then adjusted to take account of intangibles such as preservation and well-being of people. In actual plan formulations in subsequent years, preservation and well-being were not given co-equal consideration with development. Moreover, since the early 1960's, Congress has enacted many laws that have given new and more definitive directions for considering environmental objectives in planning for water and related land resources. (381)

The Water Resources Council has developed principles and standards for planning water and related land resource developments in accordance with the directives of the Water Resources Planning Act. These were approved by the President in September, 1973 and replaced S.D. 97. These are discussed in Chapter 10.

## CHAPTER 10

### THE WATER RESOURCES PLANNING ACT OF 1965

Title I of the Water Resources Planning Act of 1965, P.L. 89-80, July 22, 1965, established the Water Resources Council. The Act designated the Secretary of the Interior, the Secretary of Agriculture, the Secretary of the Army, the Secretary of Health, Education and Welfare, and the Chairman of the Federal Power Commission as Council Members. (382) The Secretary of Transportation was added as a member later by the Act creating that Department. The heads of other concerned agencies were invited by the Chairman of the Council to participate in the activities of the Council either as associate members or observers. During the last few years the Department of Housing and Urban Development, the Department of Energy, the Environmental Protection Agency and the Council on Environmental Quality have become members. Other agencies such as Office of Manpower



the first Assistant Secretary in USDA who had taken an active interest in the WRC and its activities. The Council of Alternates (COA) added a new and positive dimension to WRC activities. Dr. Rupert Cutler, current Assistant Secretary of Agriculture, continues an active interest and participation in the Council of Alternates.

The basic working group of WRC is the Council of Representation



these activities required many man-hours of time from individuals in several divisions from SCS, FS and ERS. (387)

The other Assistant Director, WRC, chaired the Federal-State Program Committee and the State Grants Committee. This Committee helped



Rainy RBC which was dissolved. Thirty-two states are members of one or more of these commissions. (393)

In addition to the six river basin commissions, there are three interagency committees which also operate under the guidance of the WRC. These are the Pacific Southwest Inter-Agency Committee (PAIAC), the Arkansas-White-Red Interagency Committee (AWRBIAC), and the Southeast Basins Inter-Agency Committee (SEBIAC). The Committees formerly had operated under the directions of ICWR. Three of the original interagency committees, the Columbia, the Missouri, and the New England-New York, had been replaced by river basin commissions.

USDA participates actively on each of the river basin commissions and the inter-agency committees. The designated USDA member of each river basin commission and interagency committee is the SCS State Conservationist from a selected state within the basin area. This state conservationist is designated by the Secretary and represents all USDA interests within the basin, including the other SCS state conservationists. On actions of interest to USDA, he consults with a representative each of the Forest Service and ERS, who attend the commission meetings.

#### The National Assessment

The Water Resources Planning Act requires the Council to prepare an assessment of the adequacy of water supplies necessary to meet the needs of the various regions of the United States. Section 102(a) of the Act states that the Council shall maintain a continuing study and prepare an assessment biennially or less frequently as the Council may determine.

One of the first tasks of the new WRC was to prepare an assessment. The first assessment was published in November 1968. About 8,000 copies of the assessment, "The Nation's Water Resources", and 13,000 Summary Reports were distributed. This assessment surveyed the water supply-demand outlook for each of the 20 water resource regions of the Nation. It defined the current and projected regional and national water needs and the current and prospective action necessary to meet those needs. The preparation of the assessment involved the coordinated efforts of many Federal, state and regional agencies. USDA participated in this effort at both the national and field levels. (394)

Because of time and data limitations, the continuing assessment was divided into three phases. Phase I was to be an initial assessment of the adequacy of the national water supply based on available data and limited analysis. The First National Assessment was of this type. Phase II was to use more fundamental analytical frameworks, more detailed measurements, and would utilize the findings of the comprehensive framework program which the Council had underway. Computer simulation models would be used in this second phase. Phase III would be a continued refinement of Phase II. (395) The Second Assessment is underway and should be published in 1978 or 1979.





Upstream floods cause \$1,064 million (1967 dollars) average annual damage. Damages, areas inundated, and communities with a flooding problem were inventoried (using existing data) and damages projected. SCS and Forest Service were involved primarily in this effort. (401)

#### 7. National Forests.

Consumptive water uses on National Forests that are comparable and complementary to that on other public lands, and problem areas and issues on National Forests were prepared by the Forest Service. (402)

#### 8. OBERS Projections.

The WRC has published a set of national, regional and area economic projections to be used in making projections of economic impacts of proposed or potential water resource developments. The set of OBERS projections which is the baseline for planning includes those designated as Series E for all sectors of the economy except for agricultural and forestry production. These are designated as Series E' and published in a supplemental document. These supplemental projections are necessary because major modifications have occurred in the international trade area affecting exports; domestic consumption patterns have shifted; and yield trends of some crops have changed. As a result of these significant changes

studies are to be continuously reappraised and revised. They are expected to contribute to the National Assessment, which is a continuing process. (406)

Level B, Regional or River Basin Plans, will be prepared to resolve complex, long-range problems identified by framework studies and the National Assessment. Their scope and detail are expected to vary widely. They will be used only where an intermediate step is needed between framework and implementation level studies. (407)

Level C, implementation studies, are to be undertaken by a single Federal, state or local entity for authorization and plan implementation. (408)

Central management brought about a proposal for central funding of all WRC planning efforts. From a management standpoint, this proposal had merit. However, from an agency standpoint, it generated problems. Under such an arrangement a manager could use or cut off agency personnel as he saw fit. But agencies would have a problem maintaining adequate qualified personnel available under such an arrangement. Agencies usually have to budget personnel for a specific period and have difficulty adjusting assignments to limited periods. Consequently, the central funding proposal was not readily acceptable to agencies with high levels of commitment to the planning program. (409)

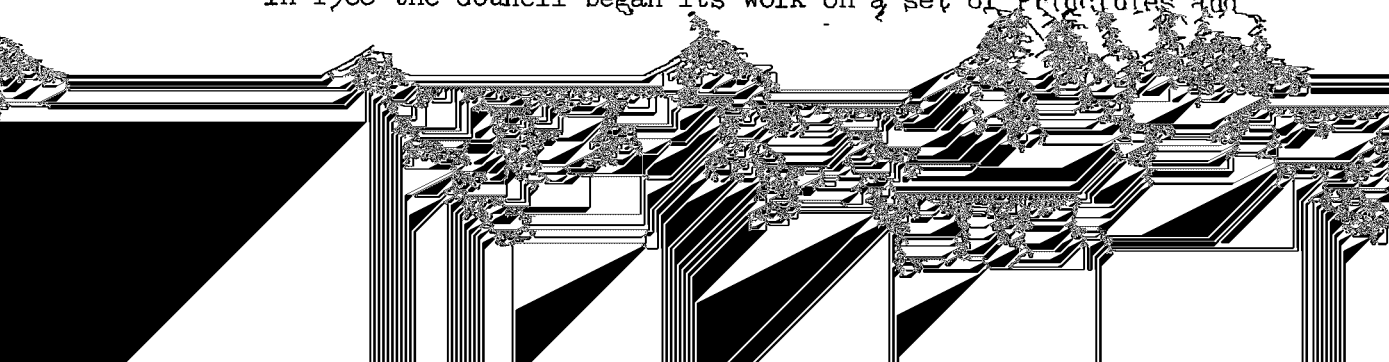
#### Grants to States

Title III of the Act sets forth a program of grants to states. It is administered by the WRC. The grants are for the purpose of building up the expertise of the states in water resource planning. Using state expenditures in FY 1965 for water and related land resource planning as a base, Federal grants could be used to provide up to 50 percent of state augmented expenditures in the field. USDA participated in the development of a formula to apportion available funds to states requesting assistance. It also participates in the annual allocation recommendations.

#### Principles and Standards for Planning Water and Related Land Resources

Section 103 of P.L. 89-80 directs the Council to establish ".... principles and standards and procedures for Federal participants in the preparation of comprehensive regional or river basin plans and for the formulation and evaluation of Federal water and related land resource projects".

In 1968 the Council began its work on a set of Principles and





involving 10 water resource projects of the SCS, Corps of Engineers, and Bureau of Reclamation. The tests were concluded in April 1970. In December 1971, the Council published its proposed Principles and Standards in the Federal Register and established a period of public review. (410)

Following publication, three public hearings were held. The Council received 11,832 comments on 23 issues from 4,782 respondents. The public record is 8,500 pages long. The Council prepared a 320 page "Summary/Analysis of the Public Response" for distribution to the public and all respondents. (411)(412) USDA made a significant input into this effort. It had membership on the Special Task Force, the testing teams, and the team which reviewed, analyzed, and took action on the comments received.

Finally, on September 10, 1973, the Council published the Principles and Standards as approved by the President in the Federal Register. These became effective October 25, 1973, and replaced the policies established by Senate Document 97 which had provided planning guidance since 1962. Of basic interest to USDA are the new planning objectives, the system of accounts, discount rates, plan formulation procedures, and the grandfather clause. (413)

## 1. Planning Objectives

Plans for the use of the nation's water and land resources will be directed to improvement of the quality of life through contributions to the objectives of national economic development and environmental quality. These objectives are to be considered coequal in the plan formulation process. The national economic development objective is to enhance national economic development by increasing the value of the nation's output of goods and services and improving national economic efficiency. The environmental quality objective is to enhance the quality of the environment through management, conservation, preservation, creation, restoration, or improvement of the quality of certain natural and cultural resources and ecological systems. (414)

## 2. System of Accounts

The Principles and Standards provide for development of four

rather than the coupon rate. The Principles and Standards state the dis-



the specific provisions for full implementation of the Principles and Standards. Plans submitted to OMB between October 23, 1973, and June 30, 1974, required only an addendum showing benefit-cost ratios using the appropriate



and programs in fulfilling this role. (424)

projects. The planning objectives to be considered were defined as regional economic development, quality of total environment including its protection and improvement, the well-being of the people of the United States, and national economic development. (426)

President Ford, in his letter of September 23, 1974, to the Chairman, WRC, assigned responsibility for conducting this study to the WRC. A plan of study was approved by the WRC on January 30, 1975. This set the stage for initiation of the study on February 1, 1975. The plan of study set forth a four-step procedure. The first step was to summarize the current situation in Federal and Federally assisted water resource programs. The second step was to develop and analyze policy options in each of the three study-issue areas and to identify their impact on water resources projects. Third, the policy options would be combined and evaluated as "policy option packages" for appropriate water resources programs. Fourth, preliminary conclusions would be presented to highlight the major alternative options for planning, evaluating and cost-sharing water and related resource projects and programs. (427)

A Study Manager was appointed by and was responsible to the WRC members. A Study Management Team was drawn from the participating Federal agencies. Its job was to assist the Study Manager and to provide guidance to him on day-to-day policy matters. The WRC members themselves retained responsibility for making policy recommendations to the President. (428)

The scope of this job was enormous. There were 7 departments with 18 separate agencies and 7 independent agencies involved in aspects of planning, implementing and operating, maintaining and rehabilitating Federal and Federally assisted water and related land programs and projects. These activities were financed through 70 different appropriation accounts. (429) The study was carried out by the Study Management Team (10 members), the Professional Study Team Staff (9 members with 5 research and secretarial assistants), and 56 professionals from the concerned agencies, with the assistance of 10 university and other advisors and reviewers. (430)

The Report consists of 22 volumes organized into 8 parts. It was completed and furnished to the Council of Members in November 1975.

USDA was a full-time participant in this study effort. It had a member on the Study Management Team and provided 10 professionals to work on various committees and other activities. It also furnished housing for the Professional Study Team Staff.

#### Water Policy Review

The U. S. has never had a unified water policy. The lack of such a policy was one of the underlying factors which generated the holding of the first National Conference on Water. President Carter has been concerned about this problem. In his Environmental Message to Congress on May 23, 1977, he announced that he had directed the Secretary of the Interior, as



chairman of the Water Resources Council, together with the Office of Management and Budget and the Council on Environmental Quality, to conduct a comprehensive review of Federal water resources policy. (431)

This review was to be completed in six months and lead to the establishment of a "national resources management policy in consultation with Congress and the public". The direction of the study was to be such as would provide incentives and make adjustments that would act to encourage or require conservation of water and efficiency in its use. A Policy Committee was established to guide the study. It is composed of Guy Martin, Assistant Secretary, USDI, representing WRC, Eliot Cutler, Associate Director, OMB, and Gus Speth, Member, CEQ. Eight regional hearings were scheduled to obtain public participation and viewpoints. Hearings were held on July 28-29, 1977, in Minneapolis, Denver, Boston, Atlanta, and Los Angeles, and on August 1-2 in Seattle, Dallas, and Cincinnati. (432)

To facilitate the presentation of comments and ideas at the Hearings, four papers were published in the July 15, 1977, issue of the Federal Register (Vol. 42 No. 136). These papers dealt with the follow-

## CHAPTER 11

### WATER CONSERVATION AND WATER QUALITY PROGRAMS

#### Colorado River Basin Salinity Control Act

One of the newest water resource programs with which USDA has become involved is the salinity control program established by the Colorado River Basin Salinity Control Act, P.L. 93-320, 93d Congress (88 Stat. 268) June 24, 1974. The Secretary of the Interior has leadership and responsibility for this program. However, he is authorized by Congress to utilize the resources of the Secretary of Agriculture to achieve higher on-farm irrigation efficiencies. (434) Further, the Secretary of Agriculture is directed to cooperate with the Secretary of the Interior to effectively carry out the objective of Title II of the Act. (435)

The objective of the Colorado River Basin Salinity Control Act is to authorize the construction, operation, and maintenance of certain



the irrigated areas that are sources of salinity in the Colorado River system, and shall jointly plan and implement salinity control measures in the diffuse source areas designated in the Act, using funds appropriated to each agency for such purposes. (440)

The Memorandum also specifies that the Commissioner of Reclamation and the Administrator, SCS, each will designate a salinity control liaison officer to achieve close coordination in carrying out the provisions of the Act. It also provides that the Commissioner and the Administrator, working through and with responsible officials of other agencies

This cooperative program has been in operation in the Wellton-Mohawk District for over two years. Its rate of progress is about on schedule. The farmers in the District are receiving it well and effectively cooperating in its installation and operation. A high level of on-farm irrigation efficiency, up to 80 percent, is being achieved. The overall system efficiency is being projected at 72 percent. High system efficiencies are necessary if the annual return flows from the Wellton-Mohawk division are to be reduced to 175,000 acre-feet or less as specified in the Act. (445)

## 2. Memorandum of Agreement for Title II

This working agreement between Reclamation and the SCS became effective March 27, 1975. It outlines the general procedures to be followed by Reclamation and the SCS with respect to cooperative programs designed to control salinity within the Colorado River Basin upstream from Imperial Dam. (446)

Sections 201(a), (b) and (c) of the Act provide for implementing the salinity control policy adopted for the Colorado River, conducting expedited investigations and installing salinity control works through cooperation of the Secretary of Agriculture and the Administrator, Environmental Protection Agency, with the Secretary of the Interior. The primary objective of this cooperative effort is the maintenance of salinity concen-



the diffuse source units with appropriate agencies to formulate and implement salinity control plans. (449)

b. The SCS agrees to support the IMS programs on the irrigation source units by coordinating technical assistance to water users on water management measures, as provided through ongoing programs, with soil and water conservation districts and providing soil survey data. It will perform a number of activities in compliance with Section 202(2) applicable to the Grand Valley Unit, including: appraisal of irrigation efficiency potential of current on-farm systems and practices; determine on-farm system modification and improvement needs to reduce return flows and salt loading; develop a plan for the needed on-farm improvements including alternative financial plans for implementation; arrange for APS or other